

## CLAIMS

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5 from the gene which codes for Bacillus pumilus PRL B12 xylanase, the presequence (SEQ ID NO:27) which codes for the signal peptide of Bacillus pumilus PRL B12 xylanase and the nucleotide sequence (SEQ ID NO:1) which codes for Bacillus sp. 720/1 xylanase.

12. Expression vector or chromosomal integration vector containing the DNA molecule according to Claim 8, 9, 10 or 11.

13. Expression vector pUBRD-720X11.

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10 14. Expression vector pBPXD-PRE-720X.

15. Transformed strain comprising the DNA molecule according to Claim 8, 9, 10 or 11.

16. Transformed strain comprising the expression vector or the chromosomal integration vector according to Claim 12, 13 or 14.

17. Transformed strain according to Claim 15 or 16, characterized in that it is a Bacillus strain.

18. Transformed strain according to Claim 17, characterized in that it is a Bacillus licheniformis or Bacillus pumilus strain.

19. Xylanase produced by the transformed strain according to Claim 15, 16, 17 or 18.

20. Method for the production of a xylanase according to any one of Claims 1 to 6 or according to Claim 19, characterized in that it comprises the culturing of a strain capable of producing xylanase in a suitable nutrient medium containing carbon and nitrogen sources and inorganic salts under aerobic conditions, and the harvesting of the xylanase thereby obtained.

30 21. Method for the preparation of a xylanase according to any one of Claims 1 to 6, characterized in that it comprises isolation of a DNA fragment coding for the xylanase, the insertion of this DNA fragment into a suitable vector, the introduction of this vector into a suitable host or the introduction of this DNA fragment into the chromosome of a suitable host, the culturing of this host, the expression of the xylanase and the harvesting of the xylanase.

22. Use of a xylanase according to any one of Claims

1 to 6 or according to Claim 19, for the treatment of paper pulp.

23. Use of a xylanase according to any one of Claims 1 to 6 or according to Claim 19 in animal feeds.

5 24. An enzyme composition containing a xylanase according to any one of Claims 1 to 6 or according to Claim 19, and at least one additive.

25. Promoter (SEQ ID NO:26) derived from the gene which codes for Bacillus pumilus PRL B12 xylanase.

10 26. Presequence (SEQ ID NO:27) which codes for the signal peptide of Bacillus pumilus PRL B12 xylanase.

27. Expression system which can be used for the production of a polypeptide, characterized in that it comprises:

- 15 - the sequence of the promoter (SEQ ID NO:26) derived from the gene which codes for Bacillus pumilus PRL B12 xylanase,  
- a sequence coding for a signal peptide, and  
- the sequence of the polypeptide of interest.

20 28. Expression system which can be used for the production of a polypeptide, characterized in that it comprises:

- the sequence of a promoter,  
- the presequence (SEQ ID NO:27) which codes for the  
25 signal peptide of Bacillus pumilus PRL B12 xylanase, and  
- the sequence of the polypeptide of interest.

29. Expression system which can be used for the production of a polypeptide, characterized in that it  
30 comprises:

- the sequence of the promoter (SEQ ID NO:26) derived from the gene which codes for Bacillus pumilus PRL B12 xylanase,  
- the presequence (SEQ ID NO:27) which codes for the  
35 signal peptide of Bacillus pumilus PRL B12 xylanase,  
- the sequence of the polypeptide of interest, and  
- the sequence of a terminator.

30. Expression system according to Claim 27, 28 or 29, characterized in that the sequence of the polypeptide

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